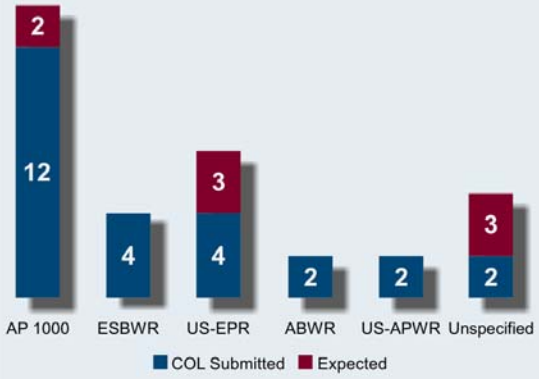
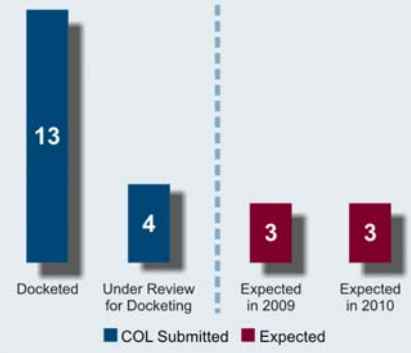
Quick Statistics

Early Site Permits issued	3
Permits under review	1
COL applications submitted	17
No. reactors submitted	26
COL applications docketed	13
No. reactors docketed	22
Total expected license applications	23
Expected number of reactors	34
Certified reactor designs	2
Reactor designs under review	4
Announced plant locations	20
Companies applying for COL	20

Number of Planned Reactors (34)



Status of License Applications (23)



Announced Nuclear Locations

- Amarillo (TX)—Amarillo Power
- Bell Bend (PA)—PPL (formerly Susquehanna)
- Bellefonte (AL)—Tennessee Valley Authority
- Elmore County (ID)—Alternate Energy Holdings
- Callaway (MO)—AmerenUE
- Calvert Cliffs (MD)—UniStar
- Clinton (IL)—Exelon
- Comanche Peak (TX)—Luminant
- Fermi (MI)—DTE Energy
- Grand Gulf (MS)—Entergy
- Shearon Harris (NC)—Progress Energy
- Levy County (FL)—Progress Energy
- Nine Mile Point (NY)—UniStar
- North Anna (VA)—Dominion Energy
- River Bend (LA)—Entergy
- South Texas Project (TX)—STP Nuclear
- V.C. Summer (SC)—SCE&G
- Turkey Point (FL)—Florida Power & Light
- Victoria County (TX)—Exelon Generation
- Vogtle (GA)—Southern Nuclear
- William States Lee III (SC)—Duke Energy

Vendor Technologies Under Consideration

General Electric

- Advanced Boiling Water Reactor (ABWR) – 1,356 MWe *(certified 10CFR52 App A)*
- Economic Simplified Boiling Water Reactor (ESBWR) – 1,560 MWe

Westinghouse

- Advanced Passive Pressurized Water Reactor (AP1000) – Twin units 1,117 MWe each *(certified 10CFR52 App D)*

AREVA

- United States Evolutionary Pressurized Water Reactor (US EPR) – 1,600 MWe

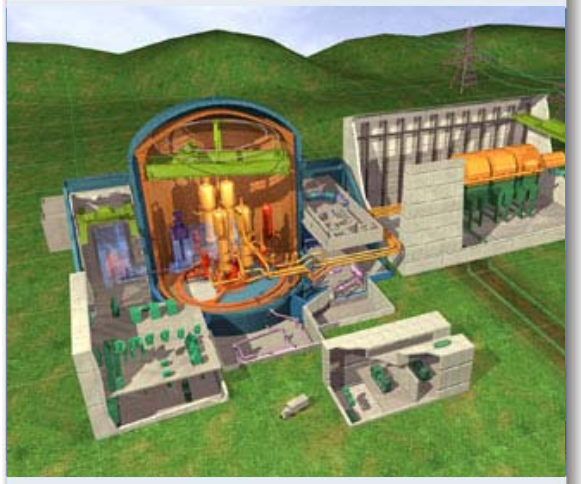
Mitsubishi Heavy Industry

- United States Advanced Pressurized Water Reactor (US APWR) – 1,700 MWe

U.S. Department of Energy
Office of Nuclear Energy

Nuclear Power Deployment Scorecard

Powering Future Decades



U.S. Department of Energy
Office of Nuclear Energy

December 5, 2008

Updates available at
http://www.nuclear.gov

What's New

NRC docketed Luminant's COL application for two APWR reactors at Comanche Peak near Glen Rose, Texas, on December 3, 2008.

NRC announced a December 4, 2008, public meeting to discuss environmental issues for Progress Energy's COL application for two AP1000 reactors in Levy County, Florida.

NRC docketed DTE's COL application for an ESBWR reactor at the Fermi site in Newport, Michigan, on November 25.

On November 24, Exelon notified the NRC it is reconsidering its choice of the ESBWR design submitted in their COL application for Victoria County, Texas, and is pursuing a "more mature" design alternative.

On November 18, NRC issued its safety evaluation report (SER) for the ESP and Limited Work Authorization (LWA) at Southern's Vogtle site. A final decision on the ESP is expected in late 2009.

Japan Steel Works, Ltd., and Areva signed an 8 year procurement agreement for large forgings on November 4, 2008.

On October 31, DOE announced availability of its standard contract for the disposal of spent fuel and radioactive waste under 10 CFR Part 961 for companies intending to build new nuclear plants. To date, Southern Nuclear and Duke Power have entered into spent fuel contracts with DOE.

Legend

- Implementation proceeding according to plan and schedule
- Progress being made; however, issues or uncertainties exist that could impede progress
- Unlikely to realize objectives absent significant management attention
- No dates or end state established
- Indicates change in status or progress since last evaluation
- Regulatory Demonstration completed. No further government assistance is warranted.

Nuclear Power Deployment Scorecard

Early Site Permit (ESP)

- Three site permits issued by NRC *(Clinton, Grand Gulf, North Anna)*
- One site permit application under NRC review *(Vogtle)*
- Submission of three other ESP applications expected in 2010-2012

Combined Construction and Operating License (COL)

License Applications Submitted to NRC

- Thirteen COLAs docketed *(Bellefonte, Calvert Cliffs, Comanche Peak, Fermi, Grand Gulf, Harris, Lee, Levy Co., North Anna, STP, Summer, Victoria Co., and Vogtle)*
- Four pending acceptance *(Bell Bend, Callaway, Nine Mile, River Bend)*
- Submission of 6 additional COLs expected in 2009-2010; none for the remainder of 2008

Status of Reference R-COLs

- All five R-COLs have been submitted and are undergoing Phase 1 of the Safety Review *(Bellefonte, Calvert Cliffs, Comanche Peak North Anna, South Texas Project)*

Reactor Design Certification (DC)

- Two advanced reactor designs certified by NRC *(ABWR and AP1000)*
- Four reactor designs undergoing NRC review *(ESBWR, US-EPR, AP1000 amend., and US-APWR)*

New Nuclear Plant Orders

Long-Lead Equipment Orders

- Nine utilities have ordered large, long-lead nuclear component forgings from three reactor vendors
- Two steel containment shells and 24 reactor coolant pumps have been ordered for AP1000 units
- Two domestic large component facilities being built (by Areva and Westinghouse)
- Japan Steel Works is only manufacturer of ultra-large forgings; worldwide-capacity limited

Engineering, Procurement, and Construction Contracts (EPC)

- Three EPC contracts initiated *(Vogtle, V.C. Summer, and STP)*
- Plant engineering is in progress; completion required to start construction

New Nuclear Plant Construction, Operation, & Deferral

- No utility has committed to constructing a new advanced reactor
- TVA has resumed construction of Watts Bar Unit 2 with completion scheduled in 2013

Federal Financial Incentives

Standby Support (Risk Insurance)

- Final 10 CFR Part 950 Rule issued August 11, 2006
- Two Notices of Intent to Request a Conditional Agreement and one formal request received by DOE

Production Tax Credits

- Internal Revenue Bulletin 2006-18 published May 2006
- IRS considering revised guidance

Nuclear Power Loan Guarantees

- Seventeen power companies have submitted 19 applications, totaling $122 billion, by the Part 1 deadline. The applications cover 14 sites with a total of 21 reactors.
- Based on review of Part I applications, DOE notified sponsors of the 14 nuclear power projects for which loan guarantees have been requested of their project's rank in the field.
- Part II applications due by December 19, 2008.